

# Freeform Search

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<b>Database:</b>	US Pre-Grant Publication Full-Text Database
	US Patents Full-Text Database
	US OCR Full-Text Database
	EPO Abstracts Database
	JPO Abstracts Database
	Derwent World Patents Index
	IBM Technical Disclosure Bulletins

  

<b>Term:</b>	<input type="text" value="6242912"/>
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<b>Display:</b>	<input type="text" value="100"/> Documents in Display Format: <input type="text" value="-"/>	Starting with Number <input type="text" value="1"/>
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<b>Generate:</b>	<input type="radio"/> Hit List	<input checked="" type="radio"/> Hit Count	<input type="radio"/> Side by Side	<input type="radio"/> Image
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Search

Clear

Interrupt

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## Search History

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**DATE:** Tuesday, December 30, 2003    [Printable Copy](#)    [Create Case](#)

<u>Set</u> <u>Name</u>	<u>Query</u>	<u>Hit</u> <u>Count</u>	<u>Set</u> <u>Name</u> result set
side by side			
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i>			
<u>L37</u>	6242912	11	<u>L37</u>
<u>L36</u>	L35 and (weight\$4 or wait\$4)	2	<u>L36</u>
<u>L35</u>	L34 and (spectr\$4 or amplitude or value or index\$3)	2	<u>L35</u>
<u>L34</u>	L33 and (water with oil)	2	<u>L34</u>
<u>L33</u>	L31 and (heavy or crude or hydrocarbon)	2	<u>L33</u>
<u>L32</u>	('6005389') [ABPN1,NRPN,PN,TBAN,WKU]	2	<u>L32</u>
<u>L31</u>	L30 and (cpmg or (spin adj echo) or spin-echo\$2 or spinecho\$2)	2	<u>L31</u>
<u>L30</u>	L29 and (transverse or "spin-spin" or "spin spin" or "t2" or "t.sub.2" or relax\$8)	2	<u>L30</u>
<u>L29</u>	L28 and (cutoff or cut-off or "cut off" or threshold\$4)	2	<u>L29</u>
<u>L28</u>	L27 and (oil)	3	<u>L28</u>
<u>L27</u>	L26 and (water)	3	<u>L27</u>
<u>L26</u>	L24 and (bitumen)	4	<u>L26</u>
<u>L25</u>	L24 and (bitrium)	0	<u>L25</u>
<u>L24</u>	((324/303)! CCLS.)	422	<u>L24</u>

<u>L23</u>	L21 and (temperature or heat\$4)	7	<u>L23</u>
<u>L22</u>	L21 and (relaxometer or relaxometry)	3	<u>L22</u>
<u>L21</u>	L20 and (water with oil)	8	<u>L21</u>
<u>L20</u>	L19 and (water)	11	<u>L20</u>
<u>L19</u>	L16 and (oil)	15	<u>L19</u>
<u>L18</u>	L17 and (heavy with (oil or water or fluid))	2	<u>L18</u>
<u>L17</u>	L16 and (emuls\$9)	8	<u>L17</u>
<u>L16</u>	L15 and (oil or water or hydrogeneous or connate or fluid\$5)	75	<u>L16</u>
<u>L15</u>	L14 and (low\$4 or high\$4 or standard or averag\$4)	76	<u>L15</u>
<u>L14</u>	L13 and (spectr\$6 or amplitude or value or index\$3)	76	<u>L14</u>
<u>L13</u>	L12 and (cutoff or cut-off or "cut off" or threshold\$4)	76	<u>L13</u>
<u>L12</u>	L11 and (weight\$4 or heavy)	208	<u>L12</u>
<u>L11</u>	L10 and (transverse or "spin-spin" or "spin spin" or "t2" or "t.sub.2" or relax\$8)	395	<u>L11</u>
<u>L10</u>	L1 and ((low with field) with ((magnetic adj resonance) or MRI or NMR))	855	<u>L10</u>
<u>L9</u>	L8 and (low\$4 or high or standard)	7	<u>L9</u>
<u>L8</u>	L7 and (spectr\$4 or amplitude or value or index\$3)	7	<u>L8</u>
<u>L7</u>	L6 and (emuls\$9)	7	<u>L7</u>
<u>L6</u>	L5 and (transverse or longitudinal or "spin-lattice" or "spin-spin" or "spin spin" or "spin lattice" or "t2" or "t.sub.2" or "t.sub.1" or "t1" or relax\$8)	28	<u>L6</u>
<u>L5</u>	L4 and (weight\$4 or heavy)	28	<u>L5</u>
<u>L4</u>	L3 and (cutoff or cut-off or "cut off" or threshold\$4)	32	<u>L4</u>
<u>L3</u>	L2 and (oil or water or hydrogeneous or connate or fluid\$5)	87	<u>L3</u>
<u>L2</u>	L1 and (relaxometer or relaxometry)	109	<u>L2</u>
<u>L1</u>	((magnetic adj resonance) or MRI or NMR)	163075	<u>L1</u>

END OF SEARCH HISTORY

## WEST Search History





DATE: Tuesday, December 30, 2003

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<input type="checkbox"/>	L38	('US20030009297A'  '20030009297')!.ABPN1,NRPN,PN,TBAN,WKU.	2
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<input type="checkbox"/>	L33	L31 and (heavy or crude or hydrocarbon)	2
<input type="checkbox"/>	L32	('6005389') [ABPN1,NRPN,PN,TBAN,WKU]	2
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<input type="checkbox"/>	L29	L28 and (cutoff or cut-off or "cut off" or threshold\$4)	2
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<input type="checkbox"/>	L27	L26 and (water)	3
<input type="checkbox"/>	L26	L24 and (bitumen)	4
<input type="checkbox"/>	L25	L24 and (bitrium)	0
<input type="checkbox"/>	L24	((324/303)!.CCLS.)	422
<input type="checkbox"/>	L23	L21 and (temperature or heat\$4)	7
<input type="checkbox"/>	L22	L21 and (relaxometer or relaxometry)	3
<input type="checkbox"/>	L21	L20 and (water with oil)	8
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<input type="checkbox"/>	L17	L16 and (emuls\$9)	8
<input type="checkbox"/>	L16	L15 and (oil or water or hydrogeneous or connate or fluid\$5)	75
<input type="checkbox"/>	L15	L14 and (low\$4 or high\$4 or standard or averag\$4)	76
<input type="checkbox"/>	L14	L13 and (spectr\$6 or amplitude or value or index\$3)	76
<input type="checkbox"/>	L13	L12 and (cutoff or cut-off or "cut off" or threshold\$4)	76
<input type="checkbox"/>	L12	L11 and (weight\$4 or heavy)	208
<input type="checkbox"/>	L11	L10 and (transverse or "spin-spin" or "spin spin" or "t2" or "t.sub.2" or relax\$8)	395
<input type="checkbox"/>	L10	L1 and ((low with field) with ((magnetic adj resonance) or MRI or NMR))	855

<input type="checkbox"/>	L9	L8 and (low\$4 or high or standard)	7
<input type="checkbox"/>	L8	L7 and (spectr\$4 or amplitude or value or index\$3)	7
<input type="checkbox"/>	L7	L6 and (emuls\$9)	7
<input type="checkbox"/>	L6	L5 and (transverse or longitudinal or "spin-lattice" or "spin-spin" or "spin spin" or "spin lattice" or "t2" or "t.sub.2" or "t.sub.1" or "t1" or relax\$8)	28
<input type="checkbox"/>	L5	L4 and (weight\$4 or heavy)	28
<input type="checkbox"/>	L4	L3 and (cutoff or cut-off or "cut off" or threshold\$4)	32
<input type="checkbox"/>	L3	L2 and (oil or water or hydrogeneous or connate or fluid\$5)	87
<input type="checkbox"/>	L2	L1 and (relaxometer or relaxometry)	109
<input type="checkbox"/>	L1	((magnetic adj resonance) or MRI or NMR)	163075

END OF SEARCH HISTORY

## Hit List

### Search Results - Record(s) 1 through 2 of 2 returned.

☐ 1. Document ID: US 20030009297 A1

L18: Entry 1 of 2

File: PGPB

Jan 9, 2003

PGPUB-DOCUMENT-NUMBER: 20030009297

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030009297 A1

TITLE: Determination of oil and water compositions of oil/water emulsions using low field NMR Relaxometry

PUBLICATION-DATE: January 9, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Mirotchnik, Konstantin	Calgary		CA	
Allsopp, Kevin	Calgary		CA	
Kantzas, Apostolos	Calgary		CA	
Marentette, Daniel	Calgary		CA	

US-CL-CURRENT: 702/25

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw/Dc
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☐ 2. Document ID: CA 2342007 A1, US 20030009297 A1

L18: Entry 2 of 2

File: DWPI

Sep 26, 2002

DERWENT-ACC-NO: 2003-329971

DERWENT-WEEK: 200331

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TITLE: Oil content determination apparatus has low field nuclear magnetic resonance relaxometer having magnet, mechanism for determining total amplitude of spectrum, and mechanism for converting amplitude value to weight value

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw/Dc
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Term	Documents
HEAVY	650457
HEAVIES	1279
HEAVYS	10
OIL	1129054
OILS	224074
WATER	2988747
WATERS	61365
FLUID	1234073
FLUIDS	272590
(17 AND (HEAVY WITH (OIL OR FLUID OR WATER))).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	2
(L17 AND (HEAVY WITH (OIL OR WATER OR FLUID))).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	2

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## Search Results - Record(s) 1 through 2 of 2 returned.

☐ 1. Document ID: US 6140817 A

L36: Entry 1 of 2

File: USPT

Oct 31, 2000

US-PAT-NO: 6140817

DOCUMENT-IDENTIFIER: US 6140817 A

TITLE: Magnetic resonance well logging method and apparatus

DATE-ISSUED: October 31, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Flaum; Charles	Ridgefield	CT		
Kleinberg; Robert L.	Ridgefield	CT		

US-CL-CURRENT: 324/303; 324/300

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw D
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☐ 2. Document ID: US 6005389 A

L36: Entry 2 of 2

File: USPT

Dec 21, 1999

US-PAT-NO: 6005389

DOCUMENT-IDENTIFIER: US 6005389 A

TITLE: Pulse sequences and interpretation techniques for NMR measurements

DATE-ISSUED: December 21, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Prammer; Manfred G.	Downingtown	PA		

US-CL-CURRENT: 324/303; 324/300

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw D
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Term	Documents
WEIGHT\$4	0
WEIGHT	1848766
WEIGHTA	5
WEIGHTABLE	53
WEIGHTABLY	3
WEIGHTACT	1
WEIGHTAGE	288
WEIGHTAGES	53
WEIGHTAGG	1
WEIGHTALL	2
WEIGHTALOW	2
(L35 AND (WEIGHT\$4 OR WAIT\$4)).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	2

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**Search Results - Record(s) 1 through 11 of 11 returned.**

☐ 1. Document ID: US 20020167314 A1

L37: Entry 1 of 11

File: PGPB

Nov 14, 2002

PGPUB-DOCUMENT-NUMBER: 20020167314  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020167314 A1

TITLE: System and method for determining oil, water and gas saturations for low-field gradient NMR logging tools

PUBLICATION-DATE: November 14, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Prammer, Manfred	Downington	PA	US	

US-CL-CURRENT: 324/303

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KNOW	Drawings
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☐ 2. Document ID: US 6661226 B1

L37: Entry 2 of 11

File: USPT

Dec 9, 2003

US-PAT-NO: 6661226  
DOCUMENT-IDENTIFIER: US 6661226 B1

TITLE: NMR apparatus and methods for measuring volumes of hydrocarbon gas and oil

DATE-ISSUED: December 9, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hou; Lei Bob	Houston	TX		
Miller; Daniel Lee	Kingwood	TX		
Galford; James Elmer	Missouri City	TX		
Bouton, Jr.; John C.	Doylestown	PA		
Coates; George Richard	Bellville	TX		
Aadireddy; Prabhakar	Houston	TX		

US-CL-CURRENT: 324/303

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. Des
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☐ 3. Document ID: US 6600316 B2

L37: Entry 3 of 11

File: USPT

Jul 29, 2003

US-PAT-NO: 6600316

DOCUMENT-IDENTIFIER: US 6600316 B2

TITLE: Rapid NMR multi-frequency T1 and T2 acquisition for earth formations evaluation with MWD or wireline tools

DATE-ISSUED: July 29, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chen; Songhua	Katy	TX		
Georgi; Dan	Houston	TX		
Kruspe; Thomas	Wienhausen			DE

US-CL-CURRENT: 324/303; 324/306

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. Des
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☐ 4. Document ID: US 6600315 B1

L37: Entry 4 of 11

File: USPT

Jul 29, 2003

US-PAT-NO: 6600315

DOCUMENT-IDENTIFIER: US 6600315 B1

TITLE: Method for improving resolution of nuclear magnetic resonance measurements by combining low resolution high accuracy measurements with high resolution low accuracy measurements

DATE-ISSUED: July 29, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Heaton; Nicholas J.	Houston	TX		
Flaum; Charles	Ridgefield	CT		
Minh; Chanh Cao	Katy	TX		

US-CL-CURRENT: 324/303

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. Des
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☐ 5. Document ID: US 6525534 B2

L37: Entry 5 of 11

File: USPT

Feb 25, 2003

US-PAT-NO: 6525534

DOCUMENT-IDENTIFIER: US 6525534 B2

TITLE: System and methods for NMR signal processing without phase alternated pair stacking

DATE-ISSUED: February 25, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Akkurt; Ridvan	Kingwood	TX		
Cherry; Ronald E.	Kingwood	TX		

US-CL-CURRENT: 324/303; 324/300

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw D
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☐ 6. Document ID: US 6512371 B2

L37: Entry 6 of 11

File: USPT

Jan 28, 2003

US-PAT-NO: 6512371

DOCUMENT-IDENTIFIER: US 6512371 B2

TITLE: System and method for determining oil, water and gas saturations for low-field gradient NMR logging tools

DATE-ISSUED: January 28, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Prammer; Manfred	Downington	PA		

US-CL-CURRENT: 324/303

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw D
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☐ 7. Document ID: US 6400147 B1

L37: Entry 7 of 11

File: USPT

Jun 4, 2002

US-PAT-NO: 6400147

DOCUMENT-IDENTIFIER: US 6400147 B1

TITLE: Downhole NMR tool having a programmable pulse sequencer

DATE-ISSUED: June 4, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Toufaily; Ali K.	Richmond	TX		
Sezginer; Abdurrahman	Houston	TX		
Jorion; Bruno	Houston	TX		
Depavia; Luis E.	Houston	TX		

US-CL-CURRENT: 324/303; 324/300

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw D
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☐ 8. Document ID: US 6297632 B1

L37: Entry 8 of 11

File: USPT

Oct 2, 2001

US-PAT-NO: 6297632

DOCUMENT-IDENTIFIER: US 6297632 B1

TITLE: Detecting tool motion effects on spin echoes obtained with nuclear magnetic resonance measurements

DATE-ISSUED: October 2, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Speier; Peter	Stafford	TX		

US-CL-CURRENT: 324/303

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw D
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☐ 9. Document ID: US 6242912 B1

L37: Entry 9 of 11

File: USPT

Jun 5, 2001

US-PAT-NO: 6242912DOCUMENT-IDENTIFIER: US 6242912 B1

TITLE: System and method for lithology-independent gas detection using multifrequency gradient NMR logging

DATE-ISSUED: June 5, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Prammer; Manfred G.	West Chester	PA		
Mardon; Duncan	Kingwood	TX		
Coates; George R.	Austin	TX		
Miller; Melvin N.	Wynnewood	PA		

US-CL-CURRENT: 324/303; 324/307

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw. De
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☐ 10. Document ID: US 6512371 B2, US 20020167314 A1, WO 200299463 A2

L37: Entry 10 of 11

File: DWPI

Jan 28, 2003

DERWENT-ACC-NO: 2003-128838

DERWENT-WEEK: 200316

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TITLE: Nuclear magnetic resonance measurement of geological formation comprises providing static magnetic field in volume of the formation, applying modified Carr-Purcell-Meiboom-Gill pulse sequence, and measuring induced echo signals

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw. De
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☐ 11. Document ID: WO 9714063 A1, AU 9671172 A, NO 9801328 A, EP 852737 A1, US 5936405 A, AU 716950 B, US 6242912 B1

L37: Entry 11 of 11

File: DWPI

Apr 17, 1997

DERWENT-ACC-NO: 1997-236054

DERWENT-WEEK: 200312

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TITLE: Lithology-independent gradient NMR gas detection - for detecting the presence and estimating the quantity of gaseous and liquid hydrocarbons in a near wellbore zone

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw. De
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Clear

Generate Collection

Print

Fwd Refs

Bkwd Refs

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Term	Documents
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(6242912).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	11

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